

# **M e m o r a n d u m**

**To:** CHAIR AND COMMISSIONERS

**CTC Meeting:** June 7-8, 2006

**Reference No.:** 3.14  
Information Item

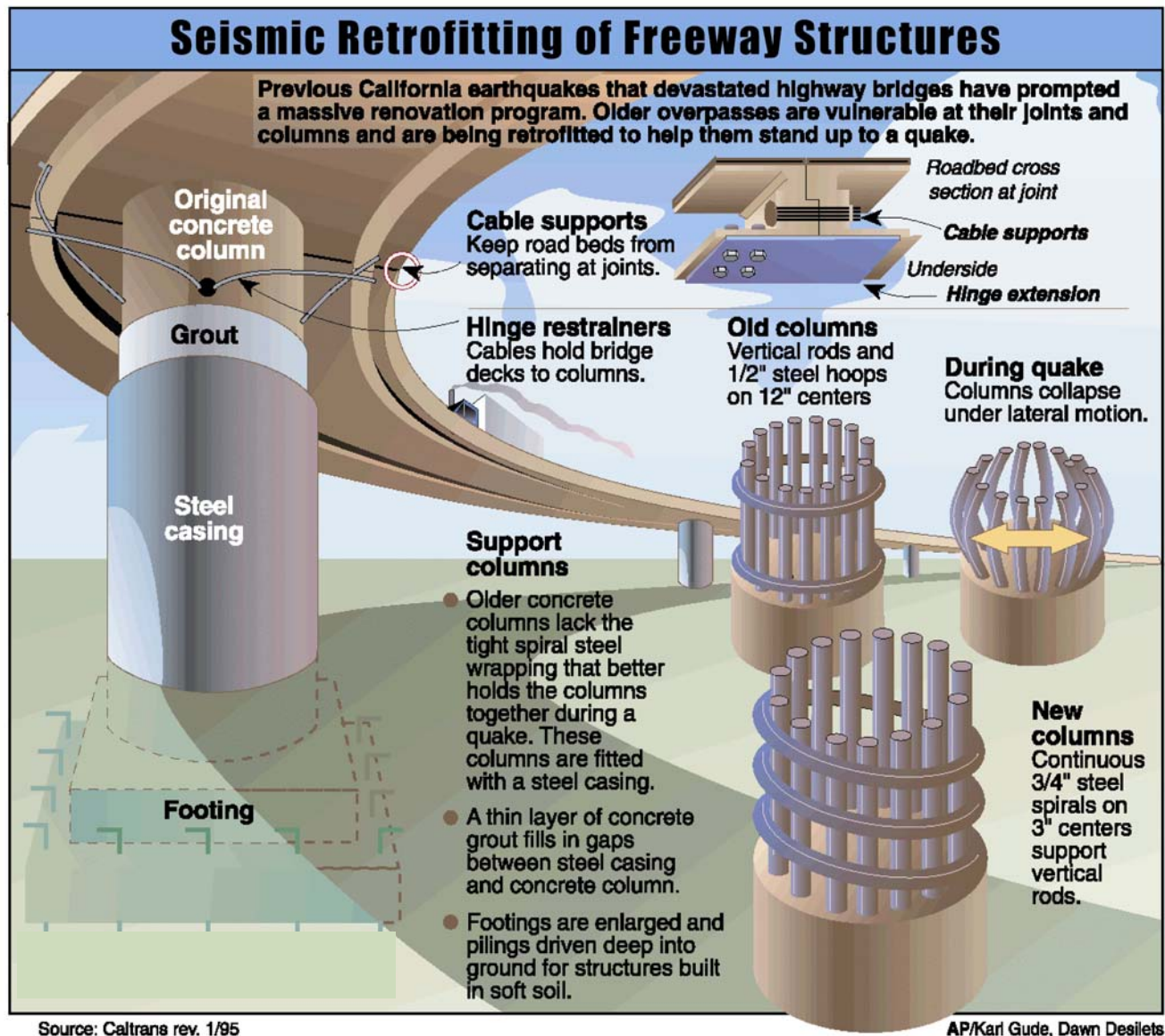
**Subject:** **2006 1<sup>st</sup> QUARTER NON-TOLL SEISMIC RETROFIT PROGRAM REPORT**

## **SUMMARY:**

Attached is the Department of Transportation's 1<sup>st</sup> Quarter Non-Toll Seismic Retrofit Program Report for calendar year 2006.

# CALIFORNIA DEPARTMENT OF TRANSPORTATION

## FIRST QUARTER 2006 NON-TOLL SEISMIC RETROFIT PROGRAM QUARTERLY REPORT



Reporting Period Ending March 31, 2006

# Executive Summary

---

The purpose of this report is to provide information on the status and progress in delivering the California Department of Transportation's (Department) non-toll seismic retrofit programs. This report fulfills the Department's statutory reporting requirement outlined in Assembly Bill (AB) 144 (Chapter 71, Statutes of 2005), which amended Section 188.5 (g) of the Streets and Highways Code as follows:

*"(1) Commencing on January 1, 2004, and quarterly thereafter until completion of all applicable projects, the Department shall provide quarterly seismic reports to the transportation committees of both houses of the Legislature and to the commission for other seismic retrofit programs.*

*(2) The reports shall include all of the following:*

*(A) A progress report for each program.*

*(B) The program baseline budget for support and capital outlay construction costs.*

*(C) The current or projected program budget for support and capital outlay construction costs.*

*(D) Expenditures to date for support and capital outlay construction costs.*

*(E) A comparison of the current or projected schedule and the baseline schedule.*

*(F) A summary of milestones achieved during the quarterly period and any issues identified and actions taken to address those issues."*

The Department currently has two non-toll seismic retrofit programs as outlined below.

The Phase 1 Seismic Retrofit Program is complete and is no longer being reported on. The Toll Bridge Seismic Retrofit Program Report is prepared and submitted separately by the Toll Bridge Program Oversight Committee as outlined in Section 30952.2 (b) (1) of the Streets and Highways Code.

## **Phase 2 Seismic Retrofit Program:**

Program consists of additional (beyond Phase 1) State-owned bridges that were determined to need seismic retrofit based on additional screening.

## **Local Bridge Seismic Retrofit Program:**

Program consists of seismic retrofit of locally-owned and Department of Water Resources (DWR) bridges. This program is funded and implemented by the agencies having jurisdiction over the bridges.

# Seismic Retrofit Program Overview

---

In California, there are more than 12,000 State-owned bridges on the State Highway System, plus an additional 11,500 city and county owned bridges not on the State Highway System. Each bridge is inspected at least once every two years. Since the 1971 Sylmar earthquake struck the Los Angeles area, the Department has been engaged in an ongoing bridge Seismic Retrofit Program. The Department's current Seismic Retrofit Program was established following the 1989 Loma Prieta earthquake to identify and strengthen bridges that needed to be brought up to seismic safety standards.

Using research developed following the 1971 Sylmar earthquake, the Department initially identified 1,039 State-owned bridges in need of being retrofitted to meet seismic safety standards, called Phase 1. The Phase 1 Program consisted of mostly single-column bridges that were considered the most vulnerable during an earthquake. The work was funded by State gas taxes.



After the 1994 Northridge earthquake, the Department identified another 1,155 State-owned bridges that became the Phase 2 Program consisting of mostly multi-column bridges. Funding for this \$1.35 billion program came from a \$2 billion bond (Proposition 192), which was passed in 1996.



When the Seismic Retrofit Program was established, there were also seven State-owned toll bridges that required retrofit work. The status and progress of the Toll Bridge Seismic Retrofit Program is reported separately in the quarterly Toll Bridge Seismic Retrofit Program Report.

There are a total of 1,235 locally-owned and DWR bridges statewide in the Local Bridge Program. Lead agencies are responsible for assessing the need for seismic retrofit work on locally-owned bridges. Funding comes from gas tax revenues utilizing subvention funds through the Department's Local Assistance Program.

## SEISMIC EVALUATION

Based on the 1971 Sylmar earthquake research, the Department implemented new bridge design criteria. From 1986 to 1989, a retrofit program developed by the Department identified single-column bridges as being potentially the most vulnerable to earthquake damage. Research sponsored by the Department at the University of California, San Diego led to a retrofit procedure that uses steel jackets to increase the strength of columns. Following the 1989 Loma Prieta earthquake in the San Francisco Bay area, the Department sponsored accelerated retrofit research primarily conducted at the University of California, Berkeley and the University of California, San Diego.

The Seismic Retrofit Program now involves strengthening the columns of existing bridges by encircling certain columns with a steel casing or, in a few instances, an advanced woven fiber casing. In addition to the column casing, some of the bridge footings are made bigger and given more support by placing additional pilings in the ground, or by using steel tie-down rods to better anchor the footings to the ground. In a few projects, bridge abutments are made larger and the existing restrainer units are made stronger because encasing the columns make them stiffer and can change the way forces are transmitted within the bridge. Many seismic retrofits involve "hinge seat extensions" which enlarge the size of the hinges that connect sections of bridge decks and help prevent them from separating during severe ground movement. The design of each bridge to be retrofitted is "site specific" based on the

maximum credible earth movement expected at that location. The design details depend on many factors, including the nearest active earthquake fault, type of geology beneath the bridge, and the original bridge design.

## Phase 2 Seismic Retrofit Program

### Progress Report

The Phase 2 Seismic Retrofit Program is currently 99 percent complete. To date 1,147 State-owned bridges, out of a total of 1,155 planned bridges, have been retrofitted under the Phase 2 Program. Currently, there is one bridge under construction and seven bridges under design.

### Milestones Achieved This Quarter

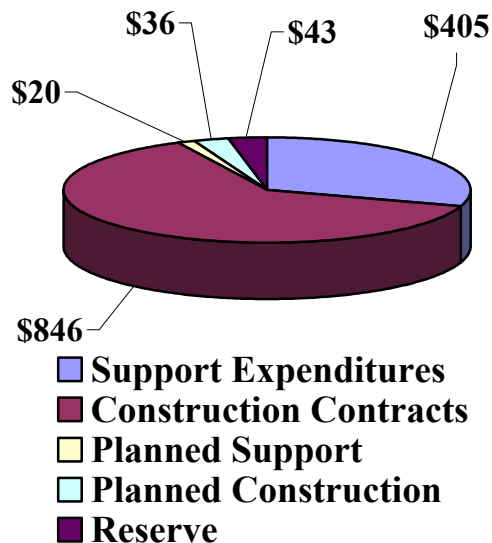
Construction work on Samoa Channel bridge over Humboldt Bay on Route 255 in Eureka was completed this quarter.

### Program Budget and Expenditures

The total budget for Phase 2 is \$1.35 billion. A total of \$846 million has been allocated for construction and right-of-way, and an additional \$405 million has been expended for support. The total of \$1.251 billion committed to date utilizes approximately 93 percent of the available program funds.

There is a balance of \$99 million of which \$36 million is planned to be allocated for construction and right-of-way, and \$20 million is planned for support, leaving a reserve of \$43 million. This reserve is intended to cover cost changes, bid results, any potential supplemental funds that may be needed, and arbitration settlements. No program cost overruns are anticipated. All remaining funds will be utilized to complete the Phase 2 Program.

**Program Costs  
(millions)**



## Program Funds

The funding for the Phase 2 Program for seismic retrofit comes from three sources. Proposition 192, which the voters approved March 26, 1996, provides bonds for \$1.21 billion. As shown in the table below an additional \$0.14 billion was expended from a combination of State (\$99.8 million) and Federal (\$40.2 million) funds prior to the passage of Proposition 192. The total budget for Phase 2 is \$1.35 billion.

### Seismic Retrofit Funds

Funds (millions)	Budgeted	Allocated
State	\$99.8	\$99.8
Federal	\$40.2	\$40.2
Bond	\$1,210.0	\$1,111.0
<b>Total</b>	<b>\$1,350.0</b>	<b>\$1,251.0</b>
<b>Available</b>		<b>\$99.0</b>

As bridges were evaluated for seismic retrofit design strategies, it was determined that for some bridges it would be more cost effective to replace the bridge than to retrofit. This is particularly true when the existing bridge needed non-seismic improvements for bridge repair or rehabilitation.

The additional cost for replacement is beyond the scope of funds available for the retrofit program. Consequently bridge replacement costs were programmed in the State Highway Operations and Prevention Program (SHOPP).

## Additional Bridge Replacement Funds

Funds (millions)	Programmed	Allocated
<b>SHOPP</b>	<b>\$598.8</b>	<b>\$0.0</b>

## Program Delivery by Region / District

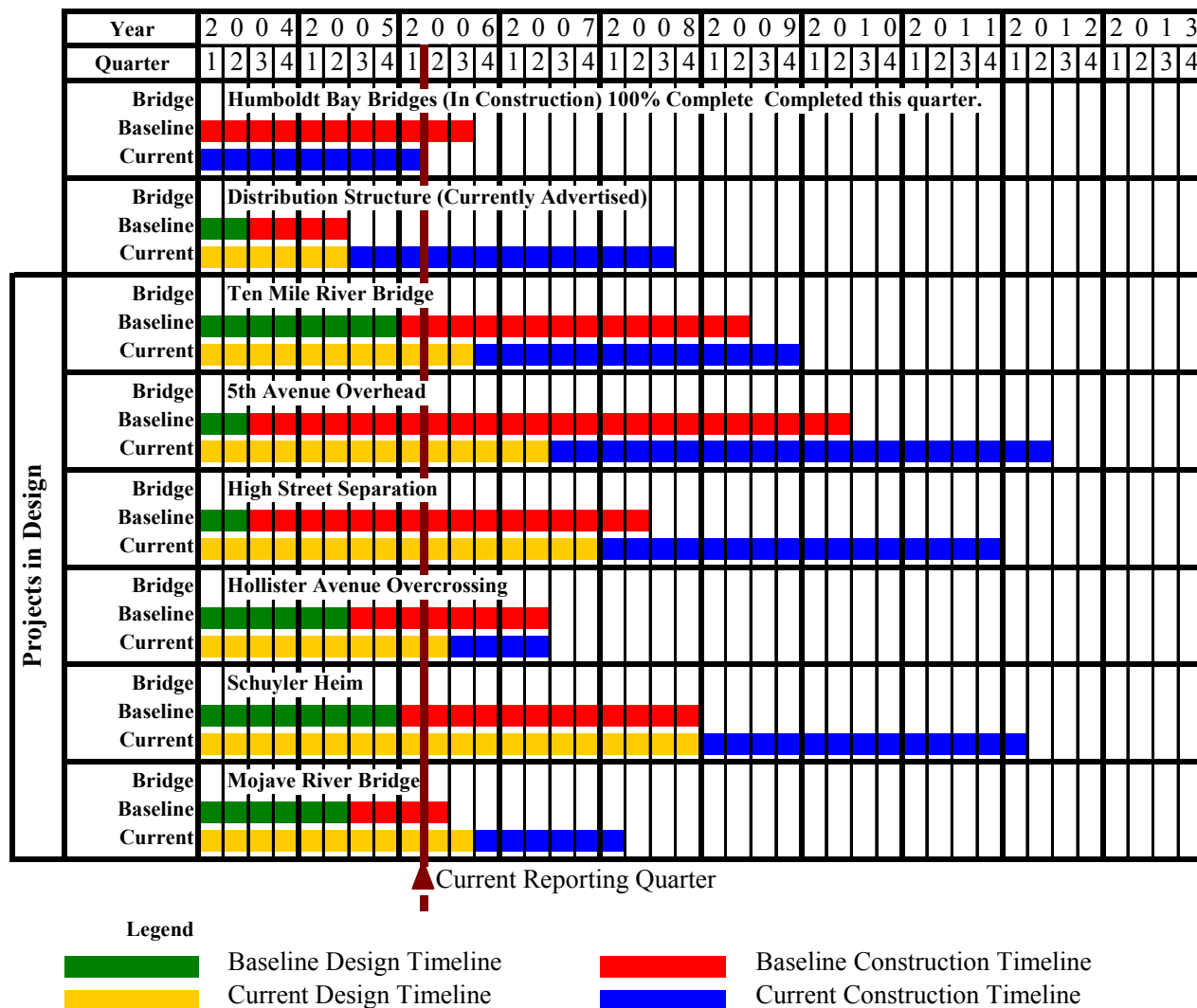
Bridges By Region	#	%	\$ millions	%
North Coast	81	7	\$ 154	11
Bay Area	151	13	\$ 527	39
Central Valley	267	23	\$ 184	14
Southern California	656	57	\$ 485	36

Bridges By District Office	#	%	\$ millions	%
1 (Redding)	69	6	\$ 139	11
2 (Eureka)	12	1	\$ 15	1
3 (Marysville)	36	3	\$ 40	3
4 (Oakland)	151	13	\$ 527	39
5 (San Luis Obispo)	107	9	\$ 82	6
6 (Fresno)	77	7	\$ 18	1
7 (Los Angeles)	292	25	\$ 301	22
8 (San Bernardino)	131	11	\$ 86	6
9 (Bishop)	7	<1	\$ 2	<1
10 (Stockton)	40	4	\$ 42	3
11 (San Diego)	172	15	\$ 82	6
12 (Irvine)	61	6	\$ 16	1

## Comparison of Current and Baseline Schedule

While the program is 99 percent complete, the few remaining bridges (1 percent) are taking substantially longer than originally planned because they are either total bridge replacement projects, or are follow-up contracts to earlier

contracts. The bridge replacement contracts face delivery challenges, including environmental protection, construction under heavy traffic conditions, and securing public and external agency input and acceptance for project approval.



## Projects Under Construction

<b>Humboldt Bay Bridges</b>			
In Humboldt County on Route 255 in Eureka			
<b>Retrofit Strategy:</b> Retrofit substructure.			
	<b>Construction</b>		<b>Budget</b>
	<b>Begins</b>	<b>Ends</b>	<b>(millions)</b>
Baseline Schedule		Mid 06	
Current Schedule		Mid 06	
Construction			\$28.4
Right of Way			\$ 0.0
Support			\$14.0
Total			\$42.4
Number of Bridges to be Retrofitted – 3			
04 0230 Eureka Channel Bridge	Completed last quarter		
04 0229 Middle Channel Bridge	Completed last quarter		
04 0228 Samoa Channel Bridge	Completed this quarter		



The Humboldt Bay Bridges project is now complete. The third bridge to be retrofitted, Samoa Channel Bridge was completed this quarter.

<b>Distribution Structure – Project #3 / 3</b>			
In Alameda County at the junction of Interstates 80 and 580 in Oakland.			
This project is the third project to retrofit a portion of the bridges at this location. There have been multiple projects due to right-of-way utility relocation and constructability issues.			
<b>Retrofit Strategy:</b> Reinforce columns and expand footings.			
	<b>Construction</b>		<b>Budget</b>
	<b>Begins</b>	<b>Ends</b>	<b>(millions)</b>
Baseline Schedule	Mid 04	Early 05	
Current Schedule	Mid 05	Late 08	
Construction			\$15.0
Right of Way			\$ 0.0
Support			\$ 5.3
Total			\$20.3
Number of Bridges to be Retrofitted – 1			
33 0061L EB 80 / EB 580			



The scope of this project includes seismic retrofit of 18 columns at the distribution structure. The project initially included another column; however, the retrofit strategy was not suitable for this column and it was eliminated from the project plans. The Department intends to retrofit the last remaining column by initiating a change order to add it back into the current project if appropriate, based on securing the right-of-way needed.

The project was originally advertised on December 19, 2005. That advertisement was suspended due to a utility relocation issue and contractor feedback (requests for information) on the contract plans. The project is currently advertised with a bid opening date set for April 24, 2006.

## Projects In Design

<b>Ten Mile River Bridge</b>			
In Mendocino County on Route 1 North of Fort Bragg and South of Westport.			
<b>Retrofit Strategy:</b> Replace Bridge			
	<b>Construction</b>		<b>Budget</b>
	<b>Begins</b>	<b>Ends</b>	<b>(millions)</b>
Baseline Schedule	Late 05	Early 09	
Current Schedule	Late 06	Late 09	
<b>Funding:</b>	SHOPP	Seismic	Total
Construction	\$22.3	\$19.5	\$41.8
Right of Way	\$ 0.2	\$ 0.0	\$ 0.2
Support	\$11.1	\$10.0	\$21.1
Total	\$33.6	\$29.5	\$63.1
Number of Bridges to be Retrofitted – 1 10-0161 Ten Mile			

*Note: Current schedule based on renewal of California Environmental Quality Act exemption.*

The bridge design plans have been completed. However, there are a number of issues concerning the environmental document that are not complete and are on the critical path for implementing the project. These issues also impact the completion of the roadwork plans for the project.

Resolving these issues is being elevated where appropriate:

- The Biological Opinion originally submitted over a year ago is still pending at the United States Fish and Wildlife Service and National Oceanic and Atmospheric Administration (NOAA) fisheries. Staff has agreed to the opinion verbally, but written response will not be provided until May 2006.
- A number of permits are also needed. Some permits cannot be requested until the environmental document is finalized.

- California Coastal Commission (CCC) approval is required. In November, the CCC staff report concurred with the project as proposed; however, CCC Commissioners' are asking for separated pedestrian walkways that were not included in the design. The Department will be resubmitting an application in April with a hearing to be scheduled for June.
- The California Environmental Quality Act (CEQA) exemption for seismic projects expired on June 30, 2005.
- The Department has subsequently prepared a CEQA environmental document for environmental clearance for this project. The document is currently being circulated for review. A public hearing is scheduled for May 2, 2006.



### Fifth Avenue Overhead

In Alameda County on Interstate 880 in Oakland.

**Retrofit Strategy:** Replace Bridge

	<b>Construction</b>		<b>Budget</b>
	<b>Begins</b>	<b>Ends</b>	<b>(millions)</b>
Baseline Schedule	Mid 04	Early 10	
Current Schedule	Mid 07	Mid 12	
<b>Funding:</b>	SHOPP	Seismic	Total
Construction	\$123.9	\$ 0.0	\$123.9
Right of Way	\$ 20.2	\$17.2	\$ 37.4
Support	\$ 15.3	\$ 7.0	\$ 22.3
Total	\$159.4	\$24.2	\$183.6
Number of Bridges to be Retrofitted – 1			
33 0027 Fifth Avenue Overhead			

Design plans for the bridge have been completed, but due to railroad requirements, the design plans may need to be revised.

The major issue delaying the implementation of this project has been the ability to negotiate and finalize the railroad requirements with Union Pacific Railroad (UPRR). The project impacts UPRR facilities on both sides of the freeway. The Department is working to secure some right-of-way from UPRR and to finalize a Construction and Maintenance agreement with UPRR.

The major sticking point in securing project approval from UPRR has been coming to an agreement on mitigating the project's impact on the railroad. As mitigation, the Department has agreed to provide funding for a railroad bridge over Lake Merritt Channel. The Department has not agreed to take on the permitting and preparing of an environmental document to implement the railroad bridge as requested by UPRR.

The project schedule continues to slip due to the impasse with UPRR. The current schedule has been updated to reflect one year additional delay compared to the schedule reported last quarter.



<b>High Street Overhead</b>			
In Alameda County on Interstate 880 in Oakland.			
<b>Retrofit Strategy:</b> Replace Bridges			
	<b>Construction Begins</b>	<b>Ends</b>	<b>Budget (millions)</b>
Baseline Schedule	Mid 04	Mid 08	
Current Schedule	Late 07	Late 11	
<b>Funding:</b>	SHOPP	Seismic	Total
Construction	\$73.2	\$ 0.0	\$73.2
Right of Way	\$20.1	\$12.0	\$32.1
Support	\$32.4	\$10.0	\$42.4
Total	\$125.7	\$22.0	\$147.7
Number of Bridges to be Retrofitted – 2			
33 0040L High Street Separation Overhead			
33 0040R High Street Separation Overhead			

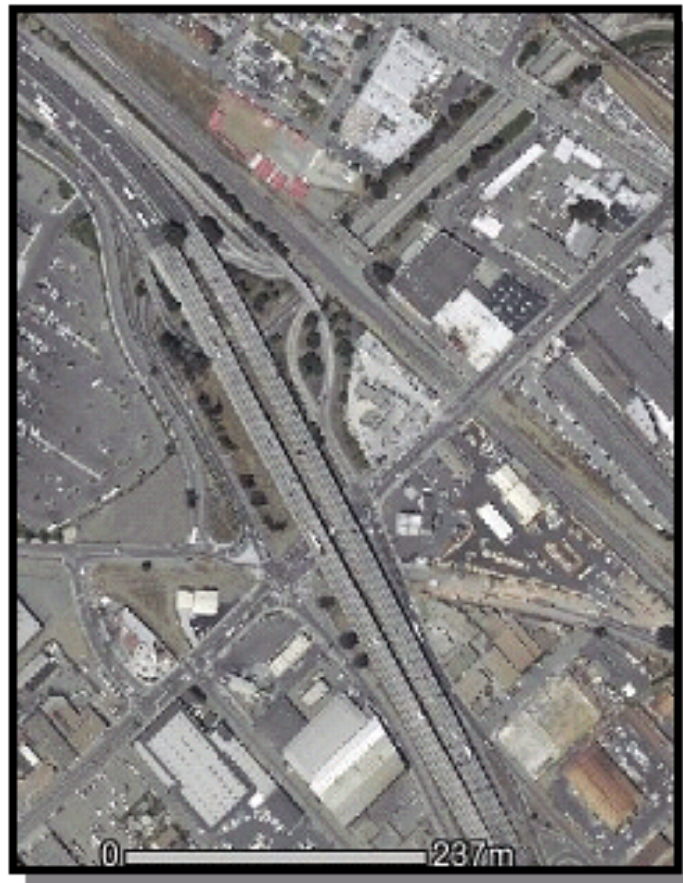
Design plans for the bridge have been completed and the roadwork plans are being finalized. Final contract plans are scheduled for late this year.

The major issue delaying the implementation of this project has been the ability to find a suitable solution to cut and reface one building, which is needed to clear the project's right-of-way requirements.

This building is adjacent to the existing freeway right-of-way and will need to be modified so that the wider bridge (to accommodate traffic staging) can be constructed. This particular property houses a business that manufactures street light poles. So far, an acceptable plan has not been developed to allow the business to remain in operation. It will be a significant cost if the parcel ends up being a full take.

The property owner for the building to be cut and refaced has hired a consultant and is currently evaluating impacts to their business.

Another schedule risk is that condemnation will likely be needed to secure one other parcel and may be required to secure a third parcel.



<b>Hollister Avenue Overcrossing</b>			
In Santa Barbara County on Route 101 in Goleta.			
<b>Retrofit Strategy:</b> Replace Bridge			
	<b>Construction</b>		<b>Budget</b>
	<b>Begins</b>	<b>Ends</b>	<b>(millions)</b>
Baseline Schedule	Mid 05	Mid 07	
Current Schedule	Mid 06	Mid 07	
<b>Funding:</b>			<b>Total</b>
Construction			\$0.8
Right of Way			\$0.0
Support			\$0.3
Total			\$1.1
Number of Bridges to be Retrofitted – 1			
51 0123X Hollister Avenue Overcrossing			



The Department has completed a recent re-evaluation of the existing structure and is moving to implement an interim retrofit strategy of shoring the bridge and constructing hinge restrainers to improve seismic safety while the longer-term strategy continues to be pursued prior to replacing the bridge.

The Project Report and Environmental Document for the interim project were completed this quarter.

The long-term strategy for this project will continue to be to replace the bridge and, in partnership with the local agency, accommodate local street improvements. The existing bridge needs to be replaced due to reactive aggregate conditions in the bridge in addition to providing for long-term seismic safety. The replacement bridge will be funded from the SHOPP. Local improvements will be funded from the Highway Bridge Replacement and Rehabilitation Program (HBRRP) funds and STIP funds.

<b>Schuyler Heim Bridge</b>			
In Los Angeles County on Route 47 in Long Beach.			
<b>Retrofit Strategy:</b> Replace Bridge			
	<b>Construction</b>		<b>Budget</b>
	<b>Begins</b>	<b>Ends</b>	<b>(millions)</b>
Baseline Schedule	Late 05	Late 08	
Current Schedule	Late 08	Early 12	
<b>Funding:</b>	<b>SHOPP</b>	<b>Seismic</b>	<b>Total</b>
Construction	\$250.0	\$0.0	\$250.0
Right of Way	\$ 5.0	\$0.0	\$ 5.0
Support	\$ 25.1	\$4.0	\$ 29.1
Total	\$280.1	\$4.0	\$284.1
Number of Bridges to be Retrofitted – 1			
53 2618 Schuyler Heim Bridge			

*Note: Current schedule tied to local improvements schedule.*

Initially, the Department designed a major retrofit project to rehabilitate and seismically retrofit this bridge. The contract plans were completed in 1998, and the Department submitted a funds request for \$46 million to the California Transportation Commission (CTC) for allocation. Because of the significant cost to retrofit, the Department re-evaluated its decision to retrofit the bridge and subsequently decided it would be more cost effective to replace the structure.

The Alameda Corridor Transportation Authority (ACTA) has been evaluating an elevated Truck Corridor Expressway to tie into a replacement bridge. The draft environmental document for the combined project is being finalized. The public hearing is anticipated to be in June of 2006.

Because of the scope and magnitude of the combined project, there is a substantial amount of risk in delivering this project on the proposed schedule. Project risks are outlined below:

- Environmental issues that need to be addressed are noise, air quality, and traffic impacts.
- Property impacts to pier operations around the port.
- Residents of the city of Wilmington may oppose the project due to impacts on their community.
- Substantial time may be needed to address construction issues and complications due to maintaining and reconstructing, as needed, numerous utilities, railroad operations, and pier and port operations.
- ACTA is committed to funding improvements, but there is no approved financial plan in place to guarantee that funding.
- Hazardous waste studies and remedial action may take additional time.

The Department is also evaluating if any interim actions are warranted prior to the bridge being replaced.



### Mojave River Bridge – Project #2 of 2

In San Bernardino County on Route 18 in San Bernardino.

This project is the second project to retrofit a portion of the bridge at this location. The second project was initiated as a result of unforeseen subsurface conditions encountered during construction that did not allow the first project to be completed.

**Retrofit Strategy:** Construct seismic anchor slabs and install steel braced frames.

	Construction		Budget (millions)
	Begins	Ends	
Baseline Schedule	Mid 05	Mid 06	
Current Schedule	Mid 06	Early 08	
<b>Funding:</b>			Total
Construction			\$6.1
Right of Way			\$0.2
Support			\$1.5
Total			\$7.8
Number of Bridges to be Retrofitted – 1			
54 0307 Mojave River Bridge			

This bridge was to be seismically retrofitted under the initial contract that went out to construction in 1998. During construction, it was discovered that the retrofit could not be completed at one of the footing locations due to existing site conditions, which consisted of cobblestones around the footing. This was not suitable to contain the potential for liquefaction in the riverbed during a seismic event. A follow-up project was initiated.

Subsequent delays have been incurred on the follow-up project as the Department has sought to finalize the seismic retrofit strategy to complete retrofit of this bridge. Securing environmental permits to evaluate the footing, and arriving at a workable solution, proved to be difficult.

The Department re-evaluated the retrofit strategy and is now proceeding with a retrofit strategy that secures the bridge by anchoring the abutments, constructing seismic anchor slabs, and installing steel braced frames.

The environmental document for this project was approved this quarter and railroad plans were submitted to the Railroad.

A project risk for implementation is that two main tracks of the Burlington Northern-Santa Fe Railroad pass beneath the structure. Approval and a right of way easement from the railroad will be needed. Railroad permits have been a challenge on past projects.



## Program Budget, Expenditures, and Current Estimates (Phase 2 Funds Only)

Bridges	Projects	Baseline Budget*	Current Budget*	Expenditures* To Date
<b>1,146</b>	<b>Completed Projects</b>			
	Capital Outlay Support		\$ 385.9	\$ 381.2
	Capital Outlay	\$ 824.0	\$ 811.1	\$ 805.0
	Total		\$ 1,197.0	\$ 1,186.2
<b>1</b>	<b>Humboldt Bay Bridges</b>			
Completed	Completed this quarter			
	<b>Projects In Construction</b>			
<b>1</b>	<b>580 Distribution Structure</b>			
	Capital Outlay Support		\$ 5.3	\$ 0.4
	Capital Outlay	\$ 15.0	\$ 15.0	\$ 0.0
	Total		\$ 20.3	\$ 0.4
	<b>Projects in Design</b>			
<b>1</b>	<b>Ten Mile River Bridge</b>			
	Capital Outlay Support		\$ 10.0	\$ 3.1
	Capital Outlay	\$ 25.0	\$ 19.5	\$ 0.0
	Total		\$ 29.5	\$ 3.1
<b>1</b>	<b>5th Avenue Overhead</b>			
	Capital Outlay Support		\$ 7.0	\$ 5.6
	Capital Outlay (R/W Only)	\$ 0.0	\$ 17.2	\$ 7.4
	Total		\$ 24.2	\$ 13.0
<b>2</b>	<b>High Street Separations</b>			
	Capital Outlay Support		\$ 10.0	\$ 10.0
	Capital Outlay (R/W Only)	\$ 0.0	\$ 12.0	\$ 12.0
	Total		\$ 22.0	\$ 22.0
<b>1</b>	<b>Hollister Avenue Overcrossing</b>			
	Capital Outlay Support		\$ 0.3	\$ 0.0
	Capital Outlay	\$ 0.0	\$ 0.8	\$ 0.0
	Total		\$ 1.1	\$ 0.0
<b>1</b>	<b>Schuyler Heim</b>			
	Capital Outlay Support		\$ 4.0	\$ 4.0
	Capital Outlay	\$ 66.0	\$ 0.0	\$ 0.0
	Total		\$ 4.0	\$ 4.0
<b>1</b>	<b>Mojave River Bridge</b>			
	Capital Outlay Support		\$ 1.5	\$ 0.7
	Capital Outlay	\$ 1.0	\$ 6.3	\$ 0.0
	Total		\$ 7.8	\$ 0.7
<b>1,155</b>	<b>Program Totals</b>			
	Capital Outlay Support	\$ 419.0	\$ 424.0	\$ 405.0
	Capital Outlay	\$ 931.0	\$ 881.9	\$ 824.4
	Total	\$ 1,350.0	\$ 1,305.9	\$ 1,229.4

\* Note: All costs shown are in millions.

## Program Cost Adjustments

The preceding table compares baseline capital costs to current costs and shows that there have been a number of cost adjustments made between projects which have also been reflected in the Department's SHOPP. These are highlighted here to help explain the differences between current costs and baseline costs reported in other versions of this report. Below is a summary of changes and the reasons for them:

- Funds for Schuyler Heim were transferred to 5<sup>th</sup> Avenue and High Street to cover right-of-way costs in the Fiscal Year 2003/04 when the Department's right-of-way plan for programmed projects was constrained due to cash flow.
- Other cost changes reflect the most current cost estimate for each project.

## Program Risks

There are three major risks facing the remaining Phase 2 projects.

- Recent bids indicate significant increases in project costs. Of particular concern are rising steel and concrete prices. The Department continues to update current costs and manage money as needed to secure funding.
- In instances where the Department needs an external project approval, delays are being incurred as the mitigation conditions are negotiated and finalized to satisfy the approving agencies. The Department is working hard with the external agencies to secure their approvals. Efforts include identifying issues and requirements early and following up on these conditions.

- CEQA Exemption Legislation expired in June 2005. The Department is actively seeking new legislation to reinstate the CEQA exemption to aid in completion of the 5<sup>th</sup> Avenue and High Street Bridge Replacement projects on Interstate 880 in Oakland. Without a CEQA exemption, an additional eighteen months (or more if there is opposition) may be needed to secure CEQA environmental clearance. In addition, a number of right-of-way activities will need to put on hold pending CEQA clearance in order to proceed.

# Local Bridge Seismic Retrofit Program

## Progress Report

The Local Bridge Seismic Retrofit Program (LBSRP) is currently 56 percent complete. To date, 692 local bridges, out of a total of 1,235 planned bridges, have been retrofitted under the LBSRP. Currently, there are 46 bridges under construction, 291 bridges under design, and 206 bridges in a pre-strategy phase.

This program was initially mandated by emergency legislation (SB 36X) after the October 17, 1989 Loma Prieta earthquake. A combination of Federal and State funding was used to fund these projects through the Department's Local Assistance Program.

The Governor signed AB 2996 in late 2002, removing the program as a State mandate and made the programming of State match funds discretionary to local agencies through the STIP programming process. The Department considers this program a high priority and continues to work with local agencies to encourage timely completion of these seismic retrofit projects.

Section 1101(a)(3) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) provides federal funds for the Highway Bridge Program to improve the condition of highway bridges through replacement, rehabilitation, seismic retrofit, and systematic preventive maintain. Section 114 of SAFETEA-LU increased the federal share of eligible bridge costs for projects, off the Interstate System from 80.00 percent to 88.53 percent.

## Milestones Achieved This Quarter

The status of local bridges by phase is as follows:

	2002	2003	2004	2005	Q1
<b>Complete</b>	549	559	589	692	692
<b>Construction</b>	105	121	128	46	46
<b>Design</b>	278	266	248	291	291
<b>Pre-Strategy</b>	302	288	269	206	206
<b>Total</b>	1,234	1,234	1,234	1,235	1,235

## Program Budget and Expenditures

The estimated budget for the LBSRP has increased to \$1.35 billion from the \$1.22 billion previously reported. A total of \$599 million has been encumbered (spent) to date.

The funding for the LBSRP comes from Federal, State, and local sources. Federal funds are provided through the Department's Local Assistance Program. State funds were provided through the annual budget process as a match for Federal funds until 2002. Since 2002, local agencies must provide matching funds from local funds or program State funds through the STIP process.

<b>Funds (millions)</b>	<b>Spent</b>	<b>Plan</b>	<b>Total</b>
<b>State</b>	\$72.2	\$0.0	\$72.2
<b>Local</b>	\$0.0	\$86.0	\$86.0
<b>Federal</b>	\$526.5	\$664.0	\$1,190.5
<b>Total</b>	\$598.7	\$750.0	\$1,348.7

## Program Delivery by Agency / Bridges

Bridges By Agency Groups	Number Of Agencies	Pre Strategy	In Design	In Construction	Complete or No Retrofit	Total # Bridges	Percent Program
All Other Agencies	193	16	163	32	587	798	65%
Los Angeles Region (City and County)	2	2	65	14	104	185	15%
Dept Water Resources	1	24	0	0	1	25	2%
BART	1	164	63	0	0	227	18%
<b>Total</b>	197	206	291	46	692	1,235	100%

Since the program is 56 percent complete, the program information has been sorted in the table above by the number of program projects per agency to better understand which bridges have been completed and those that are remaining.

Based on the information presented above, the following points are noted:

- Two agencies (Bay Area Rapid Transit [BART] and DWR) are responsible for 91 percent of projects in the Pre-Strategy phase. They are also responsible for 251 bridges (20 percent of the entire program) that are not completed.
- DWR presented the status of their program to the CTC in February 2006. Analysis of nine of their bridges is expected to be done in July 2006 and final design to start in October 2006. Construction is planned in 2008. The United States Bureau of Reclamation (USBR) owns the remaining 15 DWR bridges. USBR will begin analysis once a letter of agreement with DWR is signed. USBR plans to start final design in April 2007.
- BART's Seismic Retrofit Program consists of: Segment 1 - from the Montgomery Station in San Francisco to the Berkeley Hills tunnels and Outside Segment 1. The environmental document approval originally anticipated in December 2005 for Segment 1 is still pending. Construction is anticipated in March 2007. The PE phase for Outside Segment 1 just began. PE was authorized in August 2005.
- Excluding BART, DWR, and Los Angeles Region bridges, the other local agencies have completed 587 bridges out of a total of 798 bridges, which represents a 74 percent completion rate.
- Los Angeles area bridges are lagging slightly behind other agencies (excluding BART and DWR) for completion; however, a significant number are in design and should be proceeding to construction soon.